REMARKS/ARGUMENTS

The rejections presented in the Office action dated August 21, 2003 have been considered. Claims 1-22 remain pending in the application. Reconsideration and allowance of the application is respectfully requested.

In paragraph number 2, the Examiner has indicated that FIGs. 2 and 3 should include the legend "Prior Art." The legend "Prior Art" has been included for these figures in accordance with the Examiner's request. While FIGs. 2 and 3 depict voltage ripple and transients that may exhibit characteristics associated with the prior art, Applicants do not acquiesce that all written description corresponding to these figures is within the prior art. The figures are used in connection with the written description, however the written description speaks for itself.

A replacement drawing sheet for FIGs. 2 and 3 is provided in its final form. No annotated (i.e., marked-up) sheet showing such changes is provided, as this is optional under the IFW Final Rule unless requested by the Examiner.

Claims 1-2, 4-14, 16-19, 21-22 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,587,490 to *Crawford*. The Applicant respectfully traverses the Examiner's rejection. It is noted that *Crawford* is directed to a current source driver (*e.g.*, Abstract; col. 3, lines 55-60) to regulate current through laser diodes. An error amplifier measures the difference in current between a desired current ("Demand") through the laser diodes and the current passing through the laser diodes (*e.g.*, col. 4, lines 8-12). *Crawford* is therefore directed to a current regulator that is used to provide a current, having reduced current noise, to the laser diodes (*e.g.*, col. 4, lines 23-26).

On the other hand, Claim 1 as amended is directed to a voltage regulator to control voltage transients affecting a load. As stated in the Background of the Invention, varying load conditions can contribute significantly to transient activity. Where loads can quickly change in the quantity of current draw, a supplying power source may not be able to keep up with the speed at which such loads can change. The invention provides a manner in which the voltage seen at the load can be effectively regulated, despite the changes in load current.

Referring to FIG. 4, for example, a resistive element is placed in series between a power supply and the load(s), from which signals indicative of a drive level of the voltage regulator can be derived. These signals are used by the control circuit (*e.g.*, current control 460) to drive a conduction device (*e.g.*, transistor 470), which regulates the voltage seen at the input of the load. Further, the conduction device is coupled across the load, to allow control of the voltage at the input of the load. *Crawford*, on the other hand, describes a current regulator that compares a specified, desired current ("Demand") through the laser diodes to the current passing through the laser diodes, to regulate the current. To regulate current, the *Crawford* system places a FET 210 across the power supply 202 and the load 204/sense 212 combination. Further, the sense resistor 212 is coupled between the load and ground such that sensing is not referenced at the input of the load, where voltage regulation is of interest as in the present invention.

Thus, Claim 1 is directed to a current controlled voltage regulator including at least one resistive element coupled in series between the power source and the load, and a control circuit that is coupled across the resistive element, unlike the system of *Crawford*. Further, Claim 1 includes a conduction device coupled across the load, again unlike *Crawford* where the FET 210 is coupled across both the power supply and across the load/sense combination. In this manner, the system according to Claim 1 can provide a substantially constant voltage at the load.

To anticipate a claim, the reference must teach every element of the claim (M.P.E.P. § 2131). It is respectfully submitted that *Crawford* fails to teach every element of Claim 1 as currently presented, and *Crawford* therefore fails to anticipate Claim 1. Dependent Claims 2, 4 and 5, which are dependent from independent Claim 1, were also rejected under 35 U.S.C. §102(e) as being unpatentable over *Crawford*. While Applicant does not acquiesce with the particular rejections to these dependent claims, it is believed that these rejections are now moot in view of the remarks made in connection with independent Claim 1. These dependent claims include all of the limitations of Claim 1 and any intervening claims, and recite additional features which further distinguish these claims from the cited references. Further, new Claim 23 is dependent on Claim 1, and also includes the limitations of Claim 1. Therefore, dependent Claims 2, 4, 5 and 23 are also allowable over *Crawford*.

Independent Claims 6, 9 and 18 also stand rejected as being anticipated by *Crawford*. Independent Claims 6, 9 and 18 as currently presented set forth differences from *Crawford* as identified above, and are also in condition for allowance. For example, Claims 6, 9 and 18 include features such as a resistive element coupled in series with the power source and load where the signals for generating the control signal are taken across the resistive element, and where the conduction device is coupled across the load, to allow a voltage to be maintained at the load. As *Crawford* fails to teach such features, it is respectfully submitted that independent Claims 6, 9 and 18 are allowable over *Crawford*. Further, dependent Claims 7, 8, 10-12, 19, 21 and 22 are ultimately dependent from one of Claims 6, 9 or 18, and are therefore also in condition for allowance.

Claims 13-14 and 16-17 have been canceled without prejudice and without disclaimer, and therefore the rejection to these claims should be withdrawn.

Claims 1-2, 4, 6-14, 16, 18, 19, and 21 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,008,418 to *Murphy*. The Applicant respectfully traverses the Examiner's rejection. First considering Claim 1 of the present invention, *Murphy* fails to disclose a resistive element coupled in series with a power source and a load, where a control circuit is coupled across such a resistive element to receive signals indicative of a drive level of the voltage regulator. For example, looking to FIGs. 1 and 2 of *Murphy*, an "error amp means" 20/30 is coupled to receive a voltage reference (26) and to receive a second voltage reference from the voltage divider R4a/R4b. No control circuit coupled across a resistive element is described in *Murphy* to which the control circuit may be coupled to receive the signals identified in Claim 1.

Because *Murphy* must teach every element of Claim 1 in order to anticipate Claim 1 (M.P.E.P. § 2131), it is respectfully submitted that *Murphy* fails to anticipate Claim 1 for failing to teach at least the aforementioned aspect of Claim 1. For at least this reason, the Applicant submits that Claim 1 is allowable over *Murphy*.

Dependent Claims 2 and 4, which are dependent from independent Claim 1, were also rejected under 35 U.S.C. §102(b) as being unpatentable over *Murphy*. While Applicant does not acquiesce with any particular rejections to these dependent claims, it is believed that these rejections are now moot in view of the remarks made in connection with

independent Claim 1. These dependent claims include all of the limitations of Claim 1 and any intervening claims, and recite additional features which further distinguish these claims from the cited references. Further, new Claim 23 is dependent on Claim 1, and also includes the limitations of Claim 1. Therefore, dependent Claims 2, 4 and 23 are also allowable over *Murphy*.

Independent Claims 6, 9 and 18 also stand rejected as being anticipated by *Murphy*. Independent Claims 6, 9 and 18 as currently presented set forth differences from *Murphy* as identified above, and are also in condition for allowance. For example, Claims 6, 9 and 18 include features such as a resistive element coupled in series with the power source and load where the signals for generating the control signal are taken across the resistive element. As *Murphy* fails to teach at least this feature, it is respectfully submitted that independent Claims 6, 9 and 18 are allowable over *Murphy*. Further, dependent Claims 7, 8, 10-12, 19 and 21 are ultimately dependent from one of Claims 6, 9 or 18, and are therefore also in condition for allowance.

Claims 13-14 and 16-17 have been canceled without prejudice and without disclaimer, and therefore the rejection to these claims should be withdrawn.

Claims 5, 17 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Murphy*. The Examiner alleges that *Murphy* teaches a power regulation circuit comprising all the claimed subject matter, with the exception of the transistor being a field effect transistor (FET). The Applicant respectfully traverses the Examiner's rejection. The Applicant respectfully contends that the Examiner has failed to establish a *prima facie* case of obviousness based on *Murphy*. To establish *prima facie* obviousness based on a single reference, three basic criteria must be met, as is set forth in M.P.E.P., §2143:

1) There must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
2) There must be a reasonable expectation of success; and
3) The prior art references must teach or suggest all of the claim limitations.

All three requirements must be met to establish *prima facie* obviousness. In order to satisfy the third requirement above, *Murphy* must teach or suggest all of the claim limitations except for the specific use of a FET, to which the Examiner asserts is within the knowledge of one of

ordinary skill in the art. As previously indicated, the Applicant respectfully contends that *Murphy* fails to teach at least a resistive element coupled in series with a power source and a load, where a control circuit is coupled across such a resistive element to receive signals indicative of a drive level of the voltage regulator. Therefore, regardless of whether use of a FET would be known to be used as a transistor, *Murphy* fails to teach or suggest the invention as presented in Claims 5, 17 and 22.

For at least these reasons, the Appellant submits that the Examiner's rejection of Claims 5, 17 and 22 includes errors of fact, which has led to a rejection that is grounded in an error of law. The Appellant respectfully submits that the resulting error of law compels reversal of these rejections, as *prima facie* obviousness is not established with respect to Claims 5, 17 and 22, and these claims are therefore in condition for allowance.

The Applicant notes that Claims 3, 15 and 20 have been objected to as being dependent upon a rejected base claim, and that such claims would be allowable if rewritten in independent form. Claims 3, 15 and 20 have been rewritten in independent form, and withdrawal of the objection to Claims 3, 15 and 20 is requested. Claims 3, 15 and 20 have merely been rewritten in independent form, and no substantive changes have been made to these claims. These claims have not been amended to overcome any rejection, and such amendments were not, therefore, made for purposes of patentability. The Applicant has not intended to limit, nor has the Applicant in any way limited, the scope of Claims 3, 15 and 20 as originally filed.

The Applicant respectfully submits that the pending claims are patentable over the cited prior art of record, and that the application is in condition for allowance. If the Examiner believes it necessary or otherwise helpful, the undersigned attorney of record may be contacted at (651) 686-6633 (x110) to discuss any issues related to this case.

Respectfully submitted,

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